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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,448	06/02/2005	Rob A. Beuker	NL02 1323 US	2666
65913	7590	02/07/2008	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			MA, CALVIN	
			ART UNIT	PAPER NUMBER
			2629	
			NOTIFICATION DATE	DELIVERY MODE
			02/07/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/537,448	Applicant(s) BEUKER ET AL.	
	Examiner Calvin C. Ma	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/02/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The references listed on the Information Disclosure Statement filed on June 2, 2005 have been considered by examiner; see attached PTO-1449.

Claim Objections

Claims 1, 4-8 are objected to because of the following informalities:

Claims 1, 5-8 has the phrase "colour" which is not correctly spelled in American English. It should be changed to "color".

Claim 4 has the phrase "realised" twice which is also misspelled. It should be changed to "realized".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Pollard et al. (US Patent: 7,082,218).

As to claim 1, Pollard discloses a method for improving the perceived resolution of a colour matrix display (90) with at least one pixel (i.e. the display device 90 is able to display a full color JPEG display therefore, it must have at least one pixel) (see Fig. 11, Col. 13, Lines 18-60), comprising the steps of subdividing an incident colour channel signal (R) (i.e. the color channel of the original image that is taken by the camera and then displayed on the screen 90) (see Fig. 6, 11, Col. 11, Lines 5-40) to said pixel into a first and second signal component (i.e. the high and low frequency component), applying a gain factor (i.e. the gain factor is the color correction factors G that is applied to the components) to one of said signal components, and subsequently recombining said first and second signal components into an exiting, modified colour channel signal (i.e. the high and low frequency components are separately treated and then recombined into a final image which is then displayed on the display 90) (see Fig. 1, 11, Col. 3, Line 40 - Col. 4, Line 15).

As to claim 7, Pollard teaches a colour matrix display device (i.e. the camera device having a image display 90) having at least one pixel, said pixel being arranged to be controlled by means of an applied colour channel signal (i.e. the color image signal from the long term memory for presently captured by the image processor), the display device having a control unit comprising: a subdivision unit, for subdividing an incident colour signal into a first and second signal component (i.e. the function block that separate the high 103 and low 102 components of the image data), an gain factor application unit (the functional block responsible for color correction), for applying a gain factor to one of said components, and a recombination unit (the function block that recombines the two components to form final image 105), for subsequently recombining said first and second signal components into an exiting, modified colour channel signal, being used to control said pixel (i.e. the high and low frequency components are separately treated and then recombined into a final image which is then displayed on the display 90) (see Fig. 1, 11, Col. 3, Line 40 - Col. 4, Line 15).

As to claim 2, Pollard teaches a method according to claim 1, wherein said first and second signal components are a low-pass component and a high-pass component, respectively (i.e. the high and low frequency components are separately treated and then recombined into a final image which is then displayed on the display 90) (see Fig. 1, 11, Col. 3, Line 40 - Col. 4, Line 15).

As to claim 3, Pollard teaches a method according to claim 2, wherein said gain factor is applied to said high-pass component (i.e. the gain factor is applied to the high components in the form of the color correction matrix during color correct phase) (see Fig. 4, Col. 8, Lines 5-25).

As to claim 4, Pollard teaches a method according to claim 2, wherein said low-pass component is realised by means of a low-pass filter (i.e. low-pass filter) (see Col. 4, Lines 30-50), and said high-pass component is realised by means of a high-pass filter (i.e. the process of subtracting the result of the low-pass filter result from the raw pixel data is equivalent to high-pass filtering as the low-pass filter is in fact reverse to arrived at high frequency components), said low-pass and high-pass filters being complementary (i.e. since the to operation obtain the high and low frequency components for the same pixel data they are complementary in nature with one helping to derive the other) (see Fig. 1, Col. 4, Lines 1-60).

As to claim 5, Pollard teaches a method according to claim 1, further comprising the step of: providing the gain factor, so that the gain factor is inversely proportional to the contribution of the colour channel to the total luminance of the colour matrix display (i.e. since the color correction gain is design to minimize the presence of noise in the inputting color image to the display 90 it is inversely proportional to the original raw image that is supposed to be displayed on the display screen which affects the

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luminance level, therefore the noise cancellation correction has gain factor that is inversely relationship to the luminance of the color display 90) (see Col. 4, Lines 9-26).

As to claim 6, Pollard teaches a method according to claim 1, further comprising the step of: transmitting said exiting, modified colour channel signal to a delay (i.e. the image is placed into long term memory 88 from the microprocessor/DSP 72) (see Fig. 11) and up- or downsampling block in order to provide the modified colour channel signal with a suitable delay and scaling (i.e. the image is retrieved from the Long term memory 88 back into the microprocessor/DSP 72 and than display on the display 90, in this process the color image must be up or down sample to be properly fitted onto the display regardless of the image size on memory) (see Fig. 11, Col.13, Lines 26-55).

As to claim 8, Pollard teaches colour matrix display device as in claim 7, being arranged to perform the method according to claim 1 (i.e. since the same digital camera system satisfy the limitation of both claim 1 and 7 it also satisfy the combination of the two) (see Fig. 1, 11, Col. 3, Line 40 - Col. 4, Line 15).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakamura (US Pub: 2002/0008760) is cited to teach similar display process design.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Calvin Ma whose telephone number is (571)270-1713. The examiner can normally be reached on Monday - Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571)272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Calvin Ma

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February 2, 2008

A handwritten signature in black ink, appearing to read 'Chanh D. Nguyen', written in a cursive style.

CHANH D. NGUYEN
SUPERVISORY PATENT EXAMINER